

SERGEYEV, N.M.; SHAPET'KO, N.N.; PANOV, Ye.M.; SOROKINA, R.S.

Nuclear magnetic resonance spectra of F¹⁹ in α,β -difluoro- β -chloro-styrenes. Teoret. i eksper. khim. 1 no. 5:695-697 3-9 '65.
(MIRA 19:1)

1. Fiziko-khimicheskiy institut imeni Karpova, Moskva. Submitted February 26, 1965.

SHAPET'KO, N.N.; SERGEEV, N.M.; PANOV, Ye.M.; SOROKINA, R.S.

Extralong-range spin-spin interaction in the nuclear magnetic resonance spectrum of F¹⁹ of para-fluoro- α,β -difluoro- β -chlorostyrene. Zhur. strukt. khim. 6 no. 4:641-643 Jl-Ag '65
(MIRA 19:1)

I. Fiziko-khimicheskiy institut imeni I. Ya. Karpova, Moskva.
Submitted November 5, 1964.

SHAPET'KO, V.P.

acute leukemia in twins. Probl. gemat. i perel. krovi, no.5,
54-55 '65. (MIRA 18-10)

1. Kafedra fakul'tetskoy pediatrii (zav., prof. M.V. Golomb)
Donetskogo meditsinskogo instituta.

SHAPEVALOV, A.

Machine-Tractor Stations

Source of lower cost of tractor work MTS 12 no. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, August, 1952. UNCLASSIFIED.

sharik, b.

Meat Industry

Let's improve the work of the meat sales network. Mies, Ind. 23 no. 4, 1952.

Monthly List of Russian Acquisitions, Library of Congress, December 1952. UNCLASSIFIED.

1. S (MIL), 1.
2. USSR (600)
4. Retail trade
7. Struggle for further improvement in trade. Mias. ind. SSSR 23, No. 5, 1952
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

SHAPILLO, Shega; ZUREK, Witold

Comparison of the length characteristics of American and
Soviet standard cotton. Przegl wlokiem 18 no.1:10-14 Ja'64

SHAPILOV, A.F.

Development of the mesonephros in sheep. Trudy Inst. eksp. biol.
AN Kazakh. SSR 11:256-262 '65.

Development of the metanephros during the embryonic period in
sheep. Ibid.:263-270 (MIR 18:10)

Sharilov, u.

Collective Farms

Approval of completed tractor work on the collective farm. Kolkh. proizv. 12, No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

SHAPILOV, O.D.

✓ New reaction of replacement of alcoholic hydroxyl by fluorine and its applications. A. I. Titov, G. N. Verenich, V. V. Smirnov, and O. D. Shapilov. *Doklady Akad. Nauk S.S.R.* 113, 362-365 (1957); G. Knaayants, et al., *C.A.* 44, 5803d.—Refluxing $\text{ClCH}_2\text{CH}_2\text{OH}$ with PhSO_2F and 2 moles KF yields $\text{FCH}_2\text{CH}_2\text{Cl}$. The path of the reaction appears to be the formation of $\text{ClCH}_2\text{CH}_2\text{OK}$ by equilibration with KF (confirmed by solv. of KF in alc., and the basic nature of such solns.), followed by reaction of the alcoholate with RSO_2F yielding $\text{RSO}_2\text{CH}_2\text{CH}_2\text{Cl}$, which reacts with KF yielding the final product and RSO_2K . The reaction was applied to prepn. of org. fluorides including $(\text{CH}_2\text{Cl})_2$ (I), which turned out to be a stable substance, b. 28°, having properties of fluoroparaffins, including resistance to hydrolysis. The same was prepnd. also by treatment of $\text{PhSO}_2\text{CH}_2\text{CH}_2\text{F}$ with KF. The reaction of $\text{ClCH}_2\text{CH}_2\text{OH}$, described above, also gave some $(\text{CH}_2\text{Cl})_2$ and possibly I. The former arises from the attack on the intermediate ester by the KCl, while the latter arises from reaction of KF with the Cl atom. Refluxing 20 g. MeOH, 80 g. PhSO_2F , and 68 g. KF 7 hrs. gave 60% MeF. Reaction with EtOH was more difficult and gave some Et_2O and EtOBz as by-products; the resulting EtF was contaminated by olefin. Refluxing 32 g. $\text{FCH}_2\text{CH}_2\text{OH}$, 80 g. PhSO_2F , and 64 g. KF at 180-90° gave 56% distd. I, b. 26-6.2°, d_{4}^{20} 1.024, n_D^{20} 1.3014. Treated with alc. NaOH in 1 hr. at 70° I lost 1-2% F, while in acids the hydrolysis was slightly more rapid (up to 6%). I dissolves in fuming HNO_3 and seps. on diln. $\text{PhSO}_2\text{CH}_2\text{CH}_2\text{F}$, b. 101.2°, d_{4}^{20} 1.3497, n_D^{20} 1.5104, can be titrated after 30 min. reflux with 2% alc. aq. NaOH. This ester dissolves in 10 parts CCl but layers out with more solvent. Heating 40 g. $\text{ClCH}_2\text{CH}_2\text{OH}$, 60 g. PhSO_2F , and 50 g. KF 6 hrs. at 180-200° gave 25 g. distillate from which was isolated $\text{ClCH}_2\text{CH}_2\text{F}$, b. 51-2°, d_{4}^{20} 1.184, n_D^{20} 1.3955; this gave *N*-2-fluoroethyl-3-nitrophthalimide, m. 103°. The above reaction also gave $(\text{CH}_2\text{Cl})_2$ and $\text{PhSO}_2\text{CH}_2\text{CH}_2\text{Cl}$.

G. M. Kosaroff

SMIRNOV, Vladimir Petrovich; SHAPILOV, V.M., retsenzent; OSIFOVICH, F.A.,
red.; VITASHKINA, S.A., red.izd-va; RIDNAYA, I.V., tekhn.red.

[Manufacture and assembly of ship systems from plastic materials]
Izgotovlenie i montazh sudovykh sistem iz plastmass. Moskva,
Izd-vo "Rechnoi transport," 1962. 65 p.

(Marine pipe fitting) (Pipe, Plastic)

(MIRA 15:5)

SHAPILOV, Valeriy Mikhaylovich; MIKITIN, G.M., doktor tekhn.
nauk, red.; SHLENNIKOVA, Z.V., red.

[Safety measures in operating the electric equipment
of ships] Tekhnika bezopasnosti pri ekspluatatsii elektro-
oborudovaniia sudov. Moskva, Transport, 1965. 50 p.
(MIRA 18;6)

DUDAROV, N. P.; S. V. VENKOV, V. V.; SHAFIL'KAY, I. V.

Using natural gas combustion products for heating inflowing air.
Gaz. press. 7 no. 5; 50-51 '62. (MIRA 17:11)

SHEYMIN, B.Ya., kand.med.nauk; DUDENKO, S.Yu., inzh.; KUTEPOV, V.N.,
inzh.; ROMAENKO, V.V., inzh.; SHAPIL'SKIY, A.V., inzh.

Sanitation of working conditions in manual welding. Svar.
proizv. no.2:37-38 F '62. (MIRA 15:2)

1. Ukrainskiy nauchno-issledovatel'skiy institut gigiyeny
truda i proizvolevaniy.
(Electric welding--Hygienic aspects)

SHAPIL'SKII, M.Ya.

Hydraulic mechanism for cutting the stems of tomatoes and other vegetables. Kons.i ov. prom. 15 no.6:22 Je '60. (MIRA 13:9)

1. Spetsial'noye konstruktorskoye byuro prodrovol'stvennogo mashinostroyeniya Odesskogo sovnarkhoza.
(Canning and preserving— Equipment and supplies)

SHAPINOV, I.

Economic Conditions - Kazakhstan

Economic and cultural prosperity of the Kazakh S.S.R. Plan. khoz. No. 3, 1952

MONTHLY LIST OF RUSSIAN ACCESSIONS, LIBRARY OF CONGRESS, SEPTEMBER 1952, UNCLASSIFIED.

BIBIKOVA, V.A.; SHASHAYEV, M.A.; RESHETNIKOVA, P.I.; SHAPIRA, I.L.

Method of laboratory feeding of fleas in studying their role
in the preservation and transmission of the pathogens of
infectious diseases. Med. paraz. i paraz. bol. 33 no.6:739-
740 N-D '64. (MIRA 18:6)

1. Sredneaziatskiy nauchno-issledovatel'skiy protivochumnyy
institut, Alma-Ata.

32201
S/201/61/000/003/004/006
D299/D303

54500

AUTHOR: Shapira, I. P.

TITLE: Luminescence characteristics of ZnSCu-Mn phosphors under the effect of constant and variable fields

PERIODICAL: Akademiya nauk Bielorusskoy SSR. Izvestiya. Seriya fiziko-tehnicheskikh nauk. no. 3, 1961, 54-57

TEXT: The results are given of an experimental study of the luminescence characteristics under the combined effect of a d.c. (constant) and a.c. (alternating) field; in addition, the results are compared of the combined effect of ultraviolet radiation and a d.c. field, with the effects resulting from their separate action. A d.c. and an a.c. voltage were applied to the electrodes of the electroluminescent capacitor under investigation; voltages from 100 to 600 v were used. The monochromator YM-2(UM-2) and the photomultiplier φΥ-17 (FEU-17) were used for spectral analysis. A figure shows the dependence of the luminance I on the d.c.-voltage v. Another figure shows the dependence of the conductivity of ZnSCu-Mn

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Luminescence characteristics ...

phosphor on the voltage v . A linear dependence (within certain limits) was established between the luminance and the conductivity current. In another figure, the dependence of I on the frequency ω of the a.c. voltage is shown. Comparing the results of d.c. and a.c. voltage experiments, it is noted that the a.c. voltage produces greater luminance than the d.c. voltage, whereby this difference increases with decreasing voltage. Comparing the combined with the separate effect of ultraviolet radiation and d.c. field on ZnSCu-Mn, the conclusion is reached that these effects are additive. The results of the investigation are listed in a table, with entries for voltage, photoluminescence, electroluminescence and photoelectroluminescence. It is noted that the phosphor ZnSCu-Mn, in contradistinction to ZnSCu, is characterized by additivity of electro- and photo excitation. The spectral characteristics of ZnSCu-Mn are similar under constant and variable fields; they are not affected by the combined action of these fields, nor by the combined action of ultraviolet radiation and the constant as well as variable field, including voltage increases of up to 1000 v, and frequencies of up to 5000 cycles. The observed effects are

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Luminescence characteristics ...

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related to the recombination of electrons and ionization centers; with increasing d.c. voltage, the conductivity increases which leads to decreasing luminescence related to the variable field. There are 3 figures, 1 table and 7 Soviet-bloc references.

X

Card 3/3

GERTMAN, G.I.;SHAPIRENKO, N.M.

Calibration of alcohol measuring tanks. Spirt. prom. 23 no.4:26-27 '57.
(MIRA 10:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut spirtovoy promysh-
lennosti. (for Fertman). 2. Rosglavspirt (for Shapirenko).
(Distilling industries--Equipment and supplies)

SHAPIRO -

See also: Sapiro

REZVIN, V., arkitektor; SHAPIRO, A., arkitektor

A house with service industries. Sov. torg. 34 no.10:19-22 O '60.
(MIRA 13:10)

(Apartment houses)

(Service industries)

SHAPIRO, A.

Toward decisive victories in a peaceful competition with
capitalism. Sov. profsciuz 17 no.21:22-26 N '61. (MIRA 14:10)
(Communism)
(Russia--Economic policy)

SHAPIRO, A. A.

"The Influence of Changes in the Temperature of the Blood on the Activity of the Kidney,"
Fiziol. Zhur. SSSR, 34, No. 5, 1948. Mbr., Chair Animal Physiology, Odessa Agricultural
Inst., -cl948-.

SHAIKHO, A., kandidat ekonomicheskikh nauk.

Reduction of automobile production in the United States. Za rul.
14 no.3:22-23 '56. (MIRKA 10:9)
(United States--Automobile industry)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001548310018-0

SH-12 K, A.; KURMI, S.

Homemade 4x5 film, rev, foto 17 no.7: 21-63 01 '67. (Film. 10:6)
Photography--(praratus and supplies)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001548310018-0"

DIKHE'ER, Ya., arkitektor; SHAPIRO, A., arkitektor

New system for preparing documents for fully precast housing
construction. Stroi. i arkhit. Mosk. 9 no.6:16-20 Je '60.
(MIRA 13:6)

(Architecture--Designs and plans)

LITVAK, V.; SHAPIRO, A.; EPSHTEYN, N.

Optical-photoelectronic instruments. Radio no.8:21,54 Ag '60.
(MIRA 13:9)
(Chemical engineering--Electronic equipment)

VAYSMAN, M.; TESLER, L.; SHAPIRO, A.

Dust removal from conveyer trays at the Kuybyshev Grain Elevator.
Muk.-elev.prom. 26 no.7:12 Jl '60. (MIRA 13:8)

1. Zamestitel' direktora po uchebnoy chasti Kuybyshevskogo
mukomol'nogo tekhnikuma (for Vaysman). 2. Glavnnyy inzhener
Kuybyshevskogo elevatora (for Tesler). 3. Glavnnyy inzhener
Kuybyshevskogo mel'kombinata (for Shapiro).
(Grain--Cleaning)

SHAPIRO, A. (Voronezh)

Seventy-two gold medals. Voen.znan. 39 no.10:38 0 163.
(MIRA 16:11)

CHIKALOV, G.P.; ROYTMAN, Z.L.; LEVITSKIY, Sh.A.; MUCHNIK, F.E.; MITSKEVICH,
Z.A.; SHAPIRO, A., otv. za vypusk

[Manufacturing motor-vehicle parts of capron] Izgotovlenie detalei
avtomobilia iz kaprona. Kiev, Nauchno-issl. in-t mestnoi i top-
livoi promyshl., 1959. 45 p. (MIRA 16:1)
(Nylon) (Motor vehicles—Design and construction)

SHAPIRO, A.

Economic competition and the struggle between two ideologies. Vop.
ekon. no.11:101-114 N '61. (MIRA 14:11)
(United States--Economic conditions) (Russia--Economic conditions)
(Competition, International)

KRIVOSHEY, D.; DRAGUNOV, V.; TYSHKO, V.; KORENYAK, A., starishiy inzh. po tekhnike bezopasnosti; MOLCHANOV, A., rabochiy syr'yevogo tsekha; PUVOLOTSKIY, B.; LOBACHEV, L.; SUKHANOV, A.; ZEMLYACHENKO, I.; KOZLOV, A.; POPENKO, F., inzh. (Moskva); SHAPIRO, A.

Editor's mail. Okhr.truda i sots.strakh. 5 no.8:32-33 Ag '62.
(MIRA 15:7)

1. Glavnnyy inzh. shakhty "TSentral'naya", Krivoy Rog (for Kirvoshey).
2. Pomoshchnik glavnogo inzh. po tekhnike bezopasnosti shakhty "TSentral'naya," Krivoy Rog (for Dragunov). 3. Nachal'nik ventilyatsii shakhty "TSentral'naya," Krivoy Rog (for Tyshko). 4. Tomskiy podshipnikovyy zavod 5-GPZ (for Korenyak). 5. Kabluchnaya fabrika, g. Nerekhta (for Molchanov). 6. Predsedatel' zavodskogo komiteta Moskovskogo zavoda zhelezobetonnykh izdeliy No.7 (for Lobachev).
7. Transportnaya kontora tresta "Sterlitamakstroy", g. Sterlitamak (for Sukhanov). 8. Predsedatel' mestnogo komiteta gorodskoy tipografii, g. Michurinsk (for Zemlyachenko). 9. Predsedatel' komissii okhrany truda gorodskogo komiteta professional'nogo soyuza meditsinskikh rabotnikov, g. Yevpatoriya (for Kozlov). 10. Vneshtatnyy tekhnicheskiy inspektor Voronezhskogo oblastnogo soveta professio-nal'nykh soyuzov (for Shapiro).

(Industrial hygiene)

KHOROSHEV, I.I.; SHAPIRO, A.A.; FROLOV, S.F.; TOPUZ, V.A.

Redesign of electric holding furnaces for the annealing of malleable
cast iron. Lit. proizv. no. 5:12-14 My '62. (MIRA 16:3)
(Electric furnaces) (Annealing of metals)

SHAPIRO, A.A.

Local inoculation of aluminum in malleable iron castings. Lit.
proizv. no.8:35-36 Ag '62. (MIRA 15:11)
(Iron founding)

SHAPIRO, A.A.

Programmed control of laboratory furnaces. Metalloved. i term. obr. met.
no. 3:51+53 Mr '63. (MIPA 16:3)

1. Taganrogskiy kombaynovyy zavod.
(Electric furnaces) (Automatic control)

RAYKHSHTAT, G.N.; SHAPIRO, A.A.

Seroprevention of influenza in pediatric institutions.
Trudy IEMG no.8:204-210 '61. (MIRA 17:2)

1. Sanitarno-epidemiologicheskaya stantsiya Sverdlovskogo
rayona Moskvy (glavnnyy vrach M.G. Gilel's).

RAYKHSHTAT, G.N.; SHAPIRO, A.A.

Lowering and eradicating diphtherial morbidity. Zhur.mikrobiol.,
epid.i immun. 33 no.4:125-127 Ap '62. (MIRA 15:10)

1. Iz sanitarno-epidemiologicheskoy stantsii Sverdlovskogo
rayona Moskvy.
(DIPHTHERIA--PREVENTION)

RAYKHSHTAT, G.N.; SHAPIRO, A.A.

Eradication of diphtheria in the district. Zhur. mikrobiol.,
epid. i immun. 33 no.7:41-46 Jl '62. (MIRA 17:1)

1. Iz sanitarno-epidemiologicheskoy stantsii Sverdlovskogo
rayona Moskvy.

RAYKHSHTAT, G.N.; SHAPIRO, A.Z.; TKACHENKO, A.M.; STYCHINSKIY, G.A.

Diphtherial bacteria carrier state among immune children in a
collective. Zhur. mikrobiol., epid. i immun. 40 no.9:140 S'63.
(MIRA 17:5)
1. Iz Sanitarno-epidemiologicheskoy stantsii Sverdlovskogo rayona
Moskvy.

SHAPIRO, A. A.

PA 153T64

USSR/Engineering - Welding
Electrodes

Nov 49

"Welding Medium Carbon Steels With TsM-7 Electrodes,"
A. A. Shapiro, K. M. Lun'kov, Engineers, 2 1/2 pp

"Avtogen Delo" No 11

TsM-7 electrode was found suitable for welding medium-carbon steels, and was employed in production of automotive combines for various combinations of medium-and low-carbon steels.

153T64

38067
SHAPRO, A. A., VALYATEV, S. S., AND SAPOV, P. M.

Zavarka defektov chugunnykh detaley stal'nyimi elektrodamami so spetsial'noy.
Sel'khozmashina 1949, No. 12, S. 23-24

SHAPIRO, A. A., DOLGOVA, YE YA.

Electric Welding

Effect of electric arc welding on the quality of paint on agricultural machines.
Sel'khoz mashina No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

SHAFIRO, A. A. · DANILINA, V. S., FROLIOVA, A. G., ENGS.

Cementation (Metallurgy)

Speeding up case hardening with solid carburizing agents of agricultural machinery parts made of 18KhGt and 20Kh steel. Sel'khozmashina No. 9, 1952

Monthly List of Russian Accessions, Library of Congress, December 1952 UNCLASSIFIED.

1. SHAPIRO, A. A., Eng.
2. USSR (600)
4. Wheels
7. Technological process in the manufacture of hubs for the driving wheels of a self-propelled combine. Sel'khozmashina No. 10, 1952.
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

SHAPIRO, A.A., inzhener; YEFIMENKO, A.P.

Change in the dimensions of the opening of cast iron sprockets for combines
after heat treatment. Sel'khozmashina no.10:27-28 O '53. (MIRA 6:11)
(Combines (Agricultural machinery))

SHAPIRO, A.

Provide metalworking artels with high-grade raw material.
Prom. koop.ne.10:61 O '55. (MLRA 9:4)

1.Rukovoditel' planevoy gruppy Sverdlevskoy arteli "Udarnik".
(Sverdlevsk-- Implements, utensils, etc.)

PETROV, V.I.; GOLEVSKAYA, M.V.; SYRKASHEVA, A.V.; RAYKHSHTAT, G.N.; SHAPIRO, A.A.; BERLOVICH, E.A.; KARASEVA, M.F.; RYUMINA, M.G.; LEYKINA, R.S.; BROKER, T.N.; GITARIN, D.Yu.; MOSKOVENKO, D.F.; STASILEVICH, Z.K.; REUT, A.I., ALIYEVA, S.G.

Annotations. Zhur. mikrobiol., epid. i immun. 40 no.2:109-112
F '63. (MIRA 17:2)

1. Iz Dnepropetrovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii (for Petrov). 2. Iz Saratovskogo meditsinskogo instituta i Saratovskoy gorodskoy sanitarno epidemiologicheskoy stantsii (for Godlevskaya, Syrkasheva). 3. Iz sanitarno-epidemiologicheskoy stantsii Sverdlovskogo rayona Moskovy (for Raykhshtat, Shapiro, Berlovich, Karaseva, Ryumina, Leykina, Broker). 4. Iz Instituta eksperimental'noy patologii i terapii AMN SSSR (for Stasilevich). 5. Iz Belorusskogo sanutarni-gigiyenicheskogo instituta (for Reut). 6. Iz Uzbekskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (for Aliyeva).

SHUL'MAN, I.Ye.; KAGAN, I.L.; CHUBUKOV, A.A.; SHAPIRO, A.A.; KUROYUMOV, G.M.

Automatic electric machine for briquetting cast iron chips.
Mashinostroyitel' no.25-6 F '65. (MIRA 18,3)

RAYKHSHTAP, G.N.; SHATOV, V.P.; SOKOLOVA, M.V.; LIFKIN, R.F.; RYUMINA, M.G.;
BERJOVICH, E.A.

Epidemiological evidence of large-scale vaccinations with
Live epidemic parotitis virus. Immunobiology, epid. & immun.
42 no. 6 (1981) 7-11.
(MIRA 38:11)

L. Sanitarnyj Epidemiologicheskiy stantsiya Sverdlovskogo
rayona Moskvy. Sudostroyeniye May 1, 1981.

RAYKHSHTAT, G.N.; SHAPIRO, A.A.; LEYKINA, R.F.; KARASEVA, M.F.; BERLOVICH, E.A.;
RYUMINA, M.G.; BROKER, T.N.; KUZNETSOVA, N.S.

Epidemiological effectiveness of preventive bacteriophage treatment
against dysentery in pediatric institutions. Zhur. mikrobiol., epid.
i immun. 42 no.8:139-141 Ag '65. (MIRA 18:9)

1. Sanitarno-epidemiologicheskaya stantsiya Sverdlovskogo rayona
Moskvy.

RAYKHSHTAT, G.N.; SHAPIRO, A.A.; RYUMINA, M.G.; LEYKINA, R.F.; BERLOVICH, E.A.; KARASEVA, M.F.

Expansion of the age group of children subject to whooping cough vaccination. Vop. okh. mat. i det. 8 no.7:76-78 J1 '63.

(NIRA 17:2)

1. Iz sanitarno-epidemiologicheskoy stantsii (glavnyy vrach M. G. Gilei's) Sverdlovskogo rayona Moskvy.

ACC NR: AP7013135

SOURCE CODE: UR/0062/66/000 009/1650/1652

AUTHOR: Shapiro, A. B.; Rozantsev, E. G.

ORG: Institute of Chemical Physics, AN SSSR (Institut khimicheskoy fiziki
AN SSSR)

TITLE: First organothallium free radical

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 9, 1966, 1650-1652

TOPIC TAGS: free radical, thallium compound, exchange reaction

SUB CODE: 07

ABSTRACT: In the reaction of the free radical 8-acetyloxymercuri-2,2,4,6-tetramethyl-1,2,3,4-tetrahydroquinolinoxy with thallium triisobutyrate, an exchange of mercury with thallium was detected, yielding a new organothallium free radical. This was the first time that an organothallium free radical had been produced in solution. The hyperfine structure of the electron paramagnetic spectrum of the new radical was investigated on thallium isotopes Tl²⁰³ and Tl²⁰⁵. Orig. art. has: 2 figures and 1 formula. [JPRS: 40,422]

Card 1/1

UDC: 542.91+547.1'3+541.515+5 38.113+546.6
0933 0831

SHAPIRO, A.B.

Late abscess of the temporal lobe following ear injury. Vest.oto-
rin. 17 no.2:73 Mr-Ap '55. (MLRA 8:7)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. prof. M.S.Iur'ye).
Samarkandskogo meditsinskogo instituta.

(EAR, wounds and injuries,
causing temporal lobe abscess)

(WOUNDS AND INJURIES,
ear, causing temporal lobe abscess)

(ABSCESS,
temporal lobe, caused by ear inj.)

(TEMPORAL LOBE, abcess,
caused by ear inj.)

FEDOTOVA, O.Ya.; SHAPIRO, A.B.

Synthesis of sulfur-containing aryl aliphatic polyamides, and
properties of members of the series. Vysokom. soed. 2 no.1:
153-157 Ja '60.
(MIRA 13:5)

1. Moskovskiy khimiko-tehnologicheskiy institut imeni D.I.
Mendelejeva.
(Amides) (Sulfur organic compounds)

UGORETS, I.I.; GLAZUNOV, A.A.; SYROMYATNIKOV, I.A.; KASHUNIN, I.S.; POSTNIKOV, N.A.; RADTSIG, V.A.; UL'YANOV, S.A.; GRUDINSKIY, P.G.; VASIL'YEV, A.A.; KUVSHINSKIY, N.N.; BAPTIDANOV, L.N.; TARASOV, V.I.; KRIKUNCHIK, A.B.; ~~SHAPIRO, A.B.~~; BIBIKOV, V.V.; DVOSHIN, L.I.; KLINGOF, I.D.; KARPOV, M.M.; USPENSKIY, B.S.; CHALIDZE, I.M.; BLOCH, Ya.A.; SHMOTKIN, I.S.

Iosif IAkovlevich Gumin; obituary. Elek.sta.26 no.12:58 D '55.
(Gumin, Iosif IAkovlevich, 1890-1955) (MIRA 9:4)

SOV/110-59-3--3/25

AUTHOR: Shapiro, A.B., Engineer

TITLE: Liquid Cooling of Turbo-Generators (O zhidkostnom
okhlazhdennii turbogeneratorov)

PERIODICAL: Vestnik Elektropromyshlennosti, 1959, Nr 3, pp 8-15 (USSR)

ABSTRACT: Owing to the ever increasing outputs of alternators and the limitations of transport loading gauges the use of improved methods of cooling the conductors is becoming increasingly important. So far, the only fluid used for the internal cooling of rotor windings is hydrogen at a pressure of 4 atm. Both gases and liquids have been used for cooling stator conductors. The properties of air, hydrogen, transformer oil and water that are of importance for cooling purposes are tabulated in table 1. Liquids in general and water in particular are very advantageous for this purpose. This article considers the possibility of applying wholly liquid cooling to turbo alternators and discusses the advantages and defects of this method of cooling. The use of hollow rotor conductors filled with liquid undoubtedly presents difficulties because of high centrifugal force in the liquid. However, it is possible to design the conductors

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and windings in such a way that these centrifugal forces do not set up dangerous stresses in the conductors and other parts of the rotor winding. A schematic diagram of a water-cooled rotor is given in Fig.1. In a turbo-generator with a radius of 50 cm the specific pressure of the water due to centrifugal force at 3,000 rpm is 125 kg/sq cm. Square or rectangular conductors with round holes for cooling fluid are considered best and Fig.2 gives curves of various properties of the conductor as function of the relative diameter of the internal holes. It will be seen from Fig.2 that the least heating of the copper is obtained when the diameter of the internal duct is 0.8 the side of the square but, in this case, the mechanical stresses are too high. It is accordingly recommended to use a duct diameter of 0.5 - 0.6 of the side of the square, for which the mechanical stresses are acceptable at 3,000 rpm and the rotor copper losses 24 - 29% higher than with solid conductors. Several possible arrangements of hollow conductors in the rotor slots are shown in Fig.3, the arrangement of Fig.3c, though somewhat more complicated

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than the others, gives a better electro-magnetic design of the rotor teeth. Each of the arrangements shown has its advantages and disadvantages and the choice will depend on the circumstances of the particular case. The method of getting the water into and away from the rotor is briefly discussed. To reach the insulated windings from the shaft the water passes through a short high pressure rubber sleeve which, with a radius of 35 cm at a speed of 3,000 rpm, is subject to a centrifugal water pressure of 61.3 kg/cm². Special requirements of this insulating sleeve are described. With water speeds in the ducts of the order of 2 m/sec and an inlet water pressure of up to 10 kg/sq cm it will be necessary to have a considerable number of parallel cooling water circuits in the rotor. The arrangement and construction of a large number of insulated sleeves delivering water from the shaft to the winding is the most difficult point in producing the water cooled rotor. The difficulties are described but no practical solution is suggested. The effect of liquid cooling on rotor balancing is considered and the need to maintain water

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flow in all the circuits all the time is mentioned. Hitherto liquid cooling has been applied to hollow stator bars but the iron has been cooled by hydrogen gas from the rotor. If the rotor is water cooled there is no need to use gas to cool the stator iron. It has been recommended to cool the stator winding and steel with oil. An insulating cylinder in the air gap is used to prevent oil from getting on to the rotor. Two different possible constructions are described. Oil cooling is not an immediate possibility because oil resistant insulation is not available. ways of overcoming the fire risk have not been developed. It is worth considering the use of water which is cheap, presents no fire risk and is a good cooling medium. The stator could be cooled by condensate even at a temperature of 40-45°C and it is calculated that the losses by electrical leakage through the water would be less than 0.1% of the stator copper loss. Moreover, 90% of the turbo-generator losses would be returned to the boiler with the condensate, thus increasing the efficiency of the set as a whole. Disadvantages of water

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cooling are that if the circulation fails, power must be cut off immediately to prevent boiling and also that it is difficult to measure the insulation resistance of the winding. Several descriptions of water cooled stator windings have already been published in America and the U.K. Here it is recommended that some of the conductors should be hollow and some solid. Various constructional questions are considered briefly including water cooling of the stator iron. A segment of a flat stator iron cooler is illustrated in Fig.4. If the stator and rotor are both fully water cooled the gas inside the machine is a source of frictional heat, there is however, now need for fans and frictional losses will be greatly reduced. There is no special need to use hydrogen as the gas, it is simpler to use air. An economic comparison of two turbo generators of 100 and 300 MW, fully cooled by water, when filled with air or hydrogen is given in table 2. The comparison shows that the increase in capital cost when hydrogen is used is not justified by the reduction in losses. There is no immediate prospect of using some other light gas such as helium or a vacuum. The economic

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Liquid Cooling of Turbo-Generators

advantages of using water cooling are then considered. Loading of the copper cannot be carried too far or else the efficiency suffers. The possibility of increasing the current density, particularly in the rotor windings, makes it possible to increase the magnetic flux. Preliminary calculations are made of fully water cooled turbo-generators in six sizes ranging from 1.5 - 450 MW. The main constructional features adopted for the purpose of the comparison are described and, as far as possible, they are conventional. Maintaining the present standards for efficiency, overload capacity and so on, the output of all frame sizes of turbo generators can be increased by a factor of about three if water cooling is used instead of hydrogen. The weight of active materials and the overall transport weight is reduced to about half. Most of the reduction in size comes from reducing the length, the diameter would stay much the same except that there would be no need for gas coolers in the stator. Labour costs in making the windings would be higher because of the need to join the hollow conductors and to

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make arrangements for water supply but, on the other hand, they would be reduced because the windings would be smaller and lighter. It is considered that the overall labour costs per kilowatt of useful output would be about the same. The labour cost in making rotor windings with water cooling should be appreciably less than that in making them with forced hydrogen cooling. The use of water cooling would increase the maximum size of alternator that can be made. For example, the largest existing rotor for a 150 MW machine could be used in a water cooled turbo-alternator of 450-500 MW. It is recommended that the system of water cooling should be developed forthwith and its application to other large machines such as hydro alternators should be considered. There are 4 figures, 2 tables and 6 references of which 4 are Soviet and 2 English.

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VOSTOKOV, Aleksey Izmaylovich; LEPESHKIN, Ivan Pavlovich; YEPISHIN, A.S.,
inzhener, retsenzent; SHAPIRO, A.B., inzhener, spetsradaktor;
KHMEL'NITSKAYA, A.Z., redaktor; CHEBYSHEVA, Ye.A., tekhnicheskiy
redaktor.

[Producing sugar from beets] Proizvodstvo sakhara iz svekly.
Moskva, Pishchepromizdat. No.2. [Extracting juice from beets]
Poluchenie sokov iz svekly. 1955. 65 p. (MIRA 9:6)
(Sugar beets)

ROZANTSEV , E.G.; SHAPIRO , A.B.

New stable free radical of the indole class 2,2,4,4-tetramethyl-
1,2,3,4-tetrahydro- γ -carboline-3-oxyl. Izv. AN SSSR. Ser. khim.
no.6:1123-1125 Je '64. (MIRA 17:11)

1. Institut khimicheskoy fiziki AN SSSR.

SHAPIRO, A.B.; ROZANTSEV, E.G.; HOVAROV, L.S.; GRIGOS, V.I.

New stable free radical 4-methyl-2-spirocyclohexyl-3,4; 3',2'-tetrahydrofuran-1,2,3,4-tetrahydroquinoline-oxy. Izv.AN SSSR.
Ser.khim. no.9:1725 S '64. (MIRA 17:10)

1. Institut khimicheskoy fiziki AN SSSR.

L 59597-65 EWT(m)/EPF(c)/EWP(j) PC-4/P-4 RPI RM
 ACCESSION NR: AP5017964 DR/0062/65/000/006/1102/1104
 547.831+547.024

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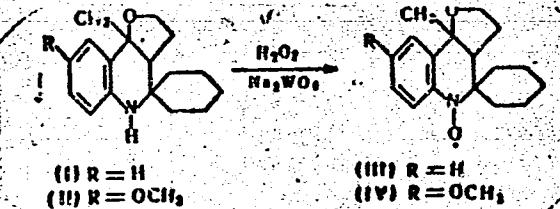
AUTHOR: Shapiro, A. B.; Rozantsev, E. G.; Povarov, L. S.; Grigos, V. I.

TITLE: Paramagnetic derivatives in the hydrogenated quinoline series

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 6, 1965, 1102-1104

TOPIC TAGS: quinoline derivative, free radical, electron spin resonance, ESR spectrum

ABSTRACT: The following stable radical from the hydrogenated quinoline series was obtained for the first time: 6-methoxy-4-methyl-2-spirocyclohexyl-3,4; 3',2'-tetrahydrofuran-1,2,3,4-tetrahydroquinolin-1-oxyl (IV). It was synthesized by catalytic oxidation of the corresponding amine (II):



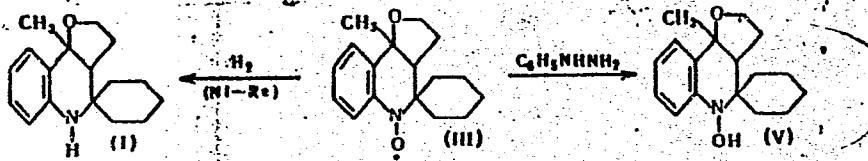
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ACCESSION NR: AP5017964

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The hyperfine structure of the ESR spectrum of this radical consists of 6 lines. Such a decrease in the number of lines upon replacement of hydrogen in the para-position by a methoxy group agrees with modern concepts of the interaction of an unpaired electron with protons of the benzene ring. Radical (III) was reduced to the initial amine and to the corresponding hydroxylamine (V):



The synthetic procedure employed is described. "In conclusion, the authors express their appreciation to A. A. Medzhidov for participating in the evaluation of the spectroscopic part of this work." Orig. art. has: 2 figures and 2 formulas.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences, SSSR); Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry, Academy of Sciences, SSSR)

Card 2/3

L 59597-65
ACCESSION NR: AP5017964

SUBMITTED: 30Sep64

ENCL: 00

SUB CODE: OC, NP

NO REF SOV: 006

OTHER: 000

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L (b) (5)(D) (e) (3)(B) (7)(E) (F) (G) T IJP(e) RM

ACC NR: AP6018126

SOURCE CODE: UR/0191/66/000/006/0037/0039

AUTHOR: Yasina, L. L.; Shapiro, A. B.; Rozantsev, E. G.14
6

ORG: none

TITLE: Inhibition of polymer oxidation with certain free radicals

SOURCE: Plasticheskiye massy, no. 6, 1966, 37-39

TOPIC TAGS: oxidation, oxidation inhibition, amine, organic imine compound, free radical, EPR spectrometry, paramagnetic ion

ABSTRACT: The antioxidation properties of carboline and quinoline derivatives were studied by determining the induction period for oxygen absorption by isotactic polypropylene and polyformaldehyde. 2,2,4,4-tetramethyl and 2,2,4,4,9-pentamethyl-1-1,2,3,4-tetrahydro- γ -carbolines (I and II) and their oxyl radicals 2,2,4,4-tetramethyl- and 2,2,4,4,9-pentamethyl 1,2,3,4-tetrahydro- γ -carboline-3-oxyl (III and IV); 2-spirocyclohexyl and 5,6-benzo-2-spirocyclohexyl-4-methyl-3,4,3',2'-tetrahydrofuran-1,2,3,4-tetrahydroquinolines (V and VI) and their corresponding -1-oxyl radicals (VII and VIII) were investigated. Radical IV was a stronger inhibitor than amines I or II or radical III; the

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UDC: 678.048.2

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ACC NR: AP6018126

paramagnetic radicals VII and VIII were stronger than amines V and VI. IV and VII inhibited thermal oxidation of polyformaldehyde more than the other mentioned compounds but less than the standard 2,2,6,6-tetramethyl-4-ethyl-4-hydroxypiperidine-1-oxyl. Orig. art. has: 5 figures, 1 table and 2 equations.

SUB CODE: 07/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 001

Card 2/2 fv

SEARCHED _____

INDEXED: 100-1000 / 100-1000 / 100-1000

MADE BY: V. A. Gerasimov, N. N. Slobodchenko, A. N.; Ruzzhikov, A. A.; Romanov, E. G.

ORGANIZATION: Institute of Chemical Physics, AN SSSR (Institut khimicheskoy fiziki AN SSSR)

TOPIC: Organomercury free radicals

JOURNAL: Zhurnal strukturnoy khimii, v. 7, no. 2, 1966, 187-191

TYPE OF RADICAL: organomercury compound, free radical, EPR spectrum

ABSTRACT: The first representatives of organomercury stable radicals were obtained in reduction and their electron paramagnetic spectra were investigated. Hyperfine structure was analyzed for nuclei of magnetic isotopes of mercury. The value of MacConnell's constant for isotropic hyperfine interaction with the isotopes Hg¹⁹⁹ and Hg²⁰¹ was determined. Mercury derivatives of N-tert-butylaniline, 2,2,4-trimethyl-1,2,3,4-tetrahydronaphthalene, and 2,2-dimethylindoline were described. The authors thank F. M. Yegidis for furnishing the N-tert-butylaniline. Orig. art. has: 5 figures and 1 table. [JPRS: 38,970]

SUB JCTN: C7 / SUBM DATE: 25 Jun 65 / ORIG REF: 003 / OTH REF: 004

Card 1/1

UDC: 538.113

0725 80 83

ZYKIN, A.I.; SHAPIRO, A.D.

Prevention of mercury poisoning while checking water gauging
equipment. Gig. i san. 21 no.9:91 S '56. (MLRA 9:10)

1. Iz L'vovskoy gorodskoy sanitarno-epidemilogicheskoy stantsii.
(MERCURY--TOXICOLOGY) (PRESSURE GAUGES)

SHAROV, A.D.

AUTHOR: Kondratorich, V.M., Engineer 135-58-6-6/19

TITLE: All-Union Conference on Prospects and Trends of the Development of Electric Welding Equipment in the USSR from 1959-1965
(Vsesoyuznoye soveshchaniye po perspektivam i napravleniyu razvitiya elektrosvarochnogo oborudovaniya v SSSR na 1959-1965 gg)

PERIODICAL: Svarochnye Proizvodstvo, 1958, Nr 6, pp 13-17 (USSR)

ABSTRACT: The conference was organized by VNIIESO, and convened from 3 to 5 February 1958 in Leningrad. N.Ya. Kochanovskiy (VNIIESO) made a report (published separately in this copy of periodical, pp 1-7) on the planned development of the production of welding equipment in 1959-1965. F.M. Sevbo of the Institut elektrosvarki imeni Ye.O. Patona (Welding Institute imeni Paton) reported on the work of his institute, pointing out that it is capable to satisfy only 10% of requirements of the industry. The institute is now operating a small plant in Kiyev and will be able to double its production. The Kiyev Sovnarkhoz has decided to have one more plant specialize in welding equipment, and to build one plant near Kiyev for the production of special heavy equipment for electric slag, arc and contact welding. Candidate of Technic-

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All-Union Conference on Prospects and Trends of the Development of Electric Welding Equipment in the USSR from 1959-1965

al Sciences, S.M. Katler, (VNIIESO), made a report on the tasks of producing arc welding equipment and described the work accomplished by VNIIESO. He mentioned a new installation for argon-arc welding aluminum alloys with a non-fusing electrode, "UDAR-300", designed jointly by the VNIIESO and the laboratory headed by L.A. Mordvinsev (Engineers Lemarin'ye and Belyy participated in this work), production of which is under way at the plant "Elektrik". Engineer A.D. Shapiro told of the development of the Vil'nyusskiy zavod elektrosvarochnogo oborudovaniya (Vil'nyus Electric Welding Equipment Plant) which is now one of the main manufacturers of such equipment in the country. The plant's planned production of welding transformers is indicated in table 1. The following persons participated in the discussions: G.A. Maslov, (NIAT) ("Outlook of Electric Welding Development in Aviation Industry"); Engineer K.V. Vasil'yev (VNIIAvtogen) (this report is printed separately in this copy of periodical, pp 12-13); Professor A.S. Gel'man (TsNIITMASH) ("The Needs of the Heavy Machine

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Building Industry for "Welding Equipment"); Engineer A.N. Davydov; Engineer A.I. Gulyayev of the Gor'kovskiy avtomobil'nyy zavod (Gor'kiy Automobile Plant) (see article in this copy, pp 10-12); Engineer M.R. Shrayerman ("Welding Equipment Development Problems in Shipbuilding"); Engineer L.Ye. Yershov of the Avtozavod imeni Likhacheva (Automobile Plant imeni Likhachev) - who pointed out that during the next 2-3 years the plant will need 20-25 multiple-electrode machines for from 5-6 production lines for components of the automobile "ZIL-130"; Engineer Timofeyev (AzINMASH); Candidate of Technical Sciences N.L. Kaganov (MVTU imeni Bauman); Engineer V.M. Korsunov of the Taganrogskiy zavod "Krasnyy kotel'shchik" (Taganrog plant "Krasnyy Kotel'shchik"); Engineer A.F. Galaktionov of the Uralskiy politekhnicheskiy institut (Urals Polytechnical Institute); Engineer I.M. Stroyman (VNIIESO) - on the institute's work on equipment for cold welding and friction welding; Candidate of Technical Sciences N.F. Kazakov of the Moskovskiy tekhnologicheskiy institut molochnoy i myasnoy promyshlennosti (Moscow Technologic Institute

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All-Union Conference on Prospects and Trends of the Development of Electric Welding Equipment in the USSR from 1959-1965

of Meat and Milk Industry); Candidate of Technical Sciences S.S. Levi (NIIOMS) - who indicated that the requirements in special equipment for welding the iron of concrete reinforcements are met by only 20%; Professor N.O. Okerblom of the Leningradskoye oddeleniye NTO Mashproma (Leningrad Branch of NTO Mashprom) - on the work and suggestions made by a specially organized team (brigada); Professor A. A. Alekseyev of Leningradskiy Politekhnicheskiy institut (Leningrad Polytechnic Institute) - who pointed out that at the time being the supply of welding equipment lags far behind the requirements, and that practical use of contact welding methods are not yet fully determined and, as a consequence, the production of contact welding machines is low; Candidate of Technical sciences I.Ya. Rabinovich of the TsNILElektrom AS USSR. The poor quality of electrodes and cables produced by the plant "Elektrik" was mentioned by several participants of conference. The poor quality of ignitrons was illustrated by the fact, that at the Gor'kiy Automobile Plant, 80% of ignitrons have to be replaced annually. The conference made the following re-

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All-Union Conference on Prospects and Trends of the Development of Electric Welding Equipment in the USSR from 1959-1965

commendations. The annual production of electric welding equipment must be increased by at least 4 times by 1965 and contact welding equipment production must constitute at least 50% of the entire production volume. Production of special electric welding equipment for different industries must be increased immediately. Special attention must be given to the quality of the equipment. The Gosplan SSSR and the Gosplan RSFSR will be asked to permit construction of a laboratory building for VNIESO and to increase the VNIESO personnel. A general catalogue of electric welding equipment produced in USSR will be published by TsBTI of the electric engineering industry. The MVTU imeni Bauman and the Leningrad and Kiev Polytechnical Institutes are to include a course for welding specialists; VNIESO and Welding Institute imeni Paton will hold regular courses for specialists of welding. The plant "Elektrik" will be made the leading plant in the production of new equipment, and will start immediately the series production of automatic and

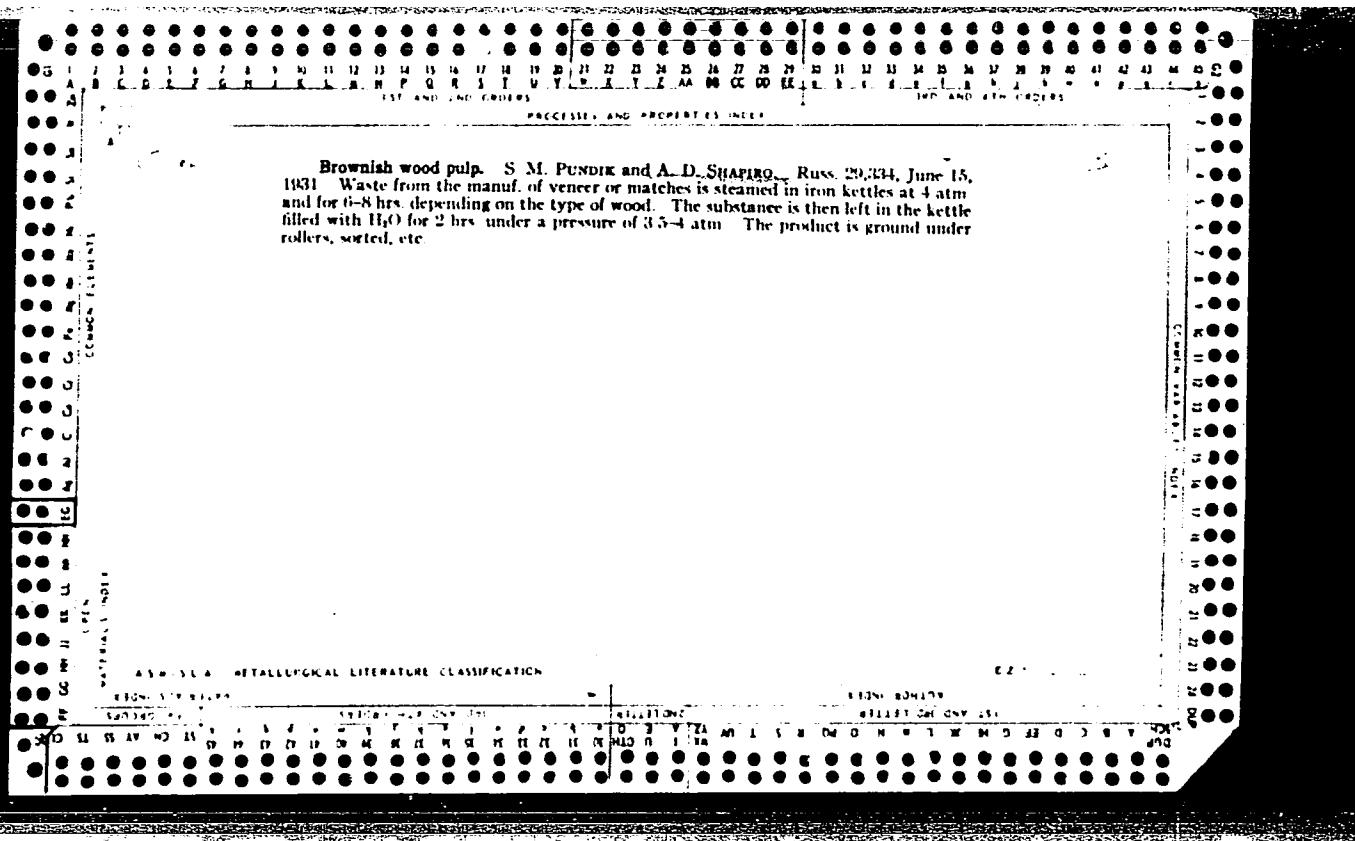
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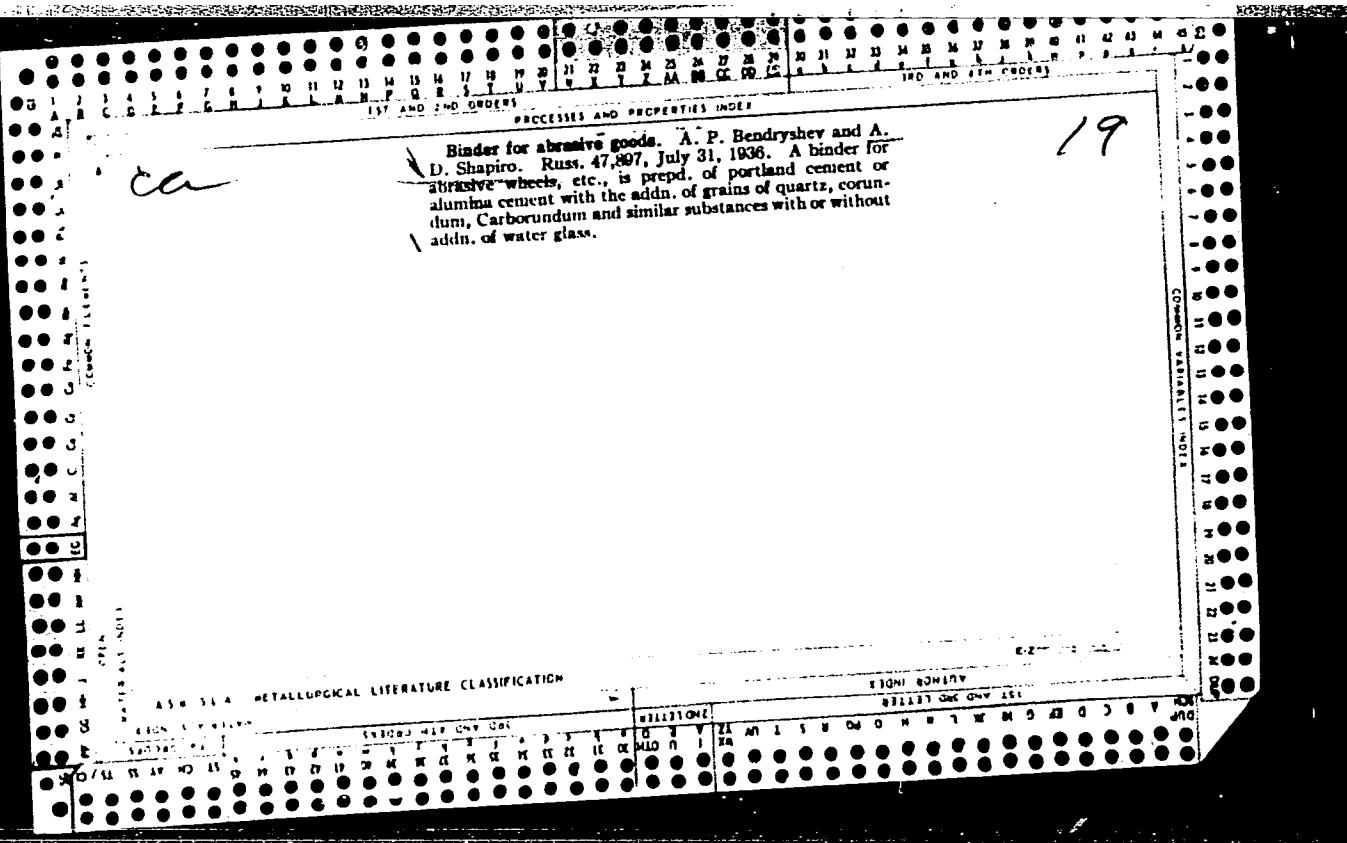
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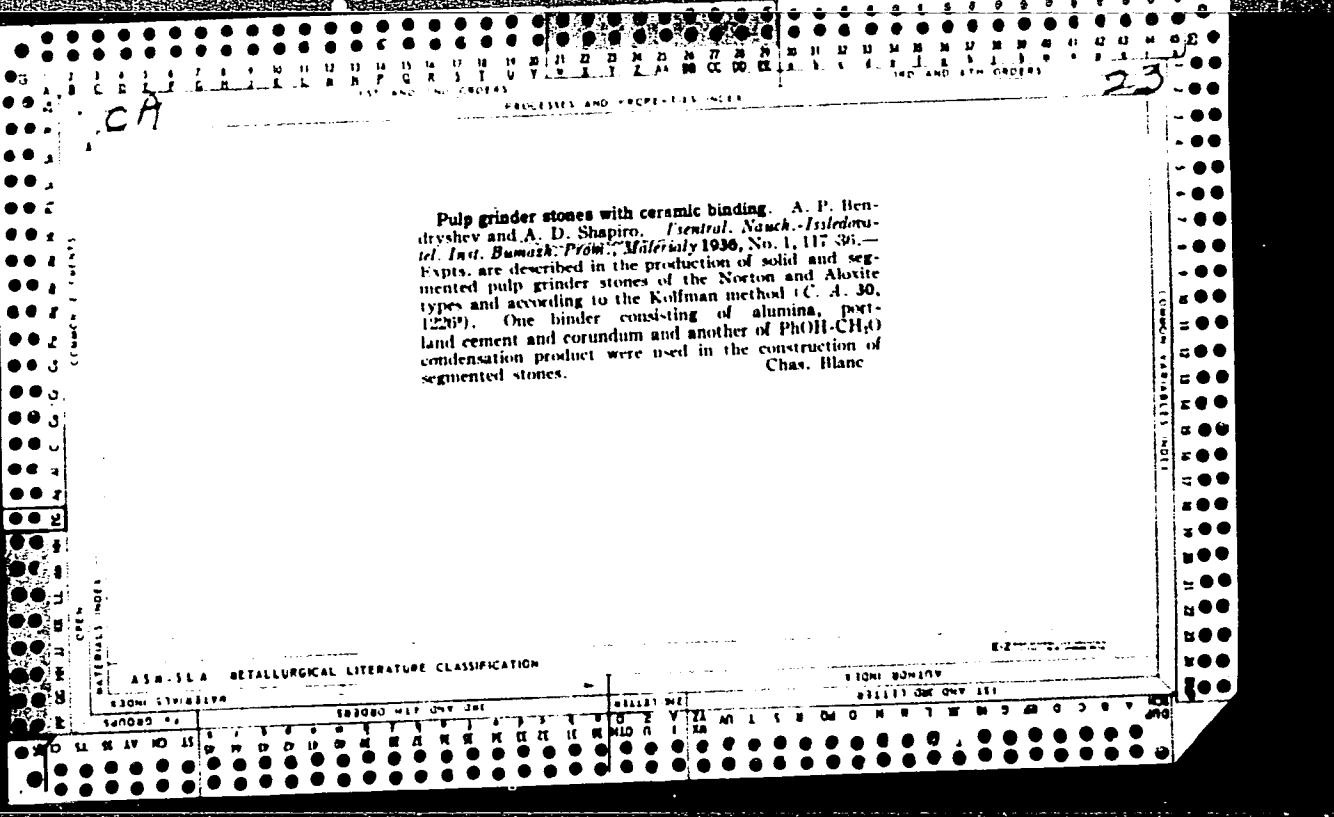
All-Union Conference on Prospects and Trends of the Development of Electric
welding Equipment in the USSR from 1959-1965

semi-automatic welding equipment. Reconstruction of the Plant "Iskra" and the construction of the Vil'nyus Electric Equipment Plant has to completed. The Kaliningrad plant must be reconstructed for production of contact welding machines of over 100 kva, as well as a plant in the Kiev rayon for the production of electric slag welding installations, surfacing machines and other automatic machines. The Kshevskiy and Ramenskiy plants (Rzhev and Ramenskoye plants) must be reconstructed and specialize in the production of welding transformers, automatic and semi-automatic inert-gas-shielded arc welding machines and auxiliary equipment. Centralized production of high-resistant alloy electrodes for contact welding machines must be organized. In the machine tool building industry, one of the plants must be made the base for producing equipment for friction welding and cold welding (pressure welding)

AVAILABLE: Library of Congress
Card 6/6







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23

The effect of forced wetting of wood stock on the production of white groundwood pulp. A. P. Bendryshev, A. D. Shapin, and M. A. Morshchikina. *Vestn. Nauk.-Tekhnol. Ind. Prom. Materialey* 1938, No. 20-7, 118-28. The effect of moisture content in logs on the process of delimiting was studied by comparative grinding of spruce chips 10, 60 and 100 cm. long with 32.2% H₂O before and after satn. with H₂O. Special tests were made with grinding of spruce sapwood and heartwood. The samples were satd. (1) by exhausting at 60 mm. for 30 min., and then treating with H₂O at 90 °C for 3-4 hrs. under hydraulic pressure of 7.8 atm., (2) by heating with steam at 1 atm. for 2 hrs. and proceeding as above. The latter procedure gave better results with an increase of moisture content by 40-81.5%, depending on the length of samples. The permeability and grinding capacity increase with the decreasing length and thickness of chips and decrease with the greater densities of the wood parts (heartwood). In general, the grinding efficiency increases with greater H₂O content. For the stock with 58.5% H₂O as compared with the untreated stock (32.2% H₂O), the grinding productivity was increased by 11%, the energy consumption was reduced by 10% and the breaking length of pulp was increased by 12%. The results were confirmed by large-scale tests at the Balaklinskij paper mill.

Chas. Blan-

23

Thermoinsulating groundwood pressboards. A. P. Bendryshev and A. D. Shapiro. *Tsentral. Nauch.-Issledovat. Inst. Bumazh. Prom. Materialy* 1938, No. 28, 125-30.—The combined results of 295 factory and lab. expts. are discussed. A board with best insulating and mech. properties was obtained from a mixt. of 85% spruce groundwood and 15% unbleached sulfite pulp ground in a defiberer to 10.5° freeness and treated with 2% of liquid paraffin, 1% resinate soap and 2% $\text{Al}_2(\text{SO}_4)_3$. The stock was formed into paper at a paper-machine speed of 2 m./min. and then pressed and dried to 11.5 mm. thickness in a hydraulic press at 7 atm. of steam pressure.
Chas. Blanc

ASA SLA METALLURGICAL LITERATURE CLASSIFICATION

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23

PROCESSES AND PROPERTIES INDEX
Thermally insulating cardboard. A. D. Shapiro and
A. P. Bendryshev. Russ. 68,486, Dec. 31, 1910. A
highly porous and mechanically strong cardboard is ob-
tained by impregnating with paraffin or parafin and rosin
a composition of 80-85 parts of refined pulp with a freeness
of 10-15% and 20-15 parts of unbleached sulfite pulp.

AT&T SEARCH METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED

SEARCHED

Groundwood from pine. B. N. Numerov and A. D.
Shapiro. *Bumazhnaya Prom.* 18, No. 5, 49-52 (1940).
The American and German methods of production of pine
groundwood are discussed.
Chas. Blanc

2 3

ASL SLA METALLURGICAL LITERATURE CLASSIFICATION

SHAPIRO, A. D. (Co-author)

See: NUMEROV, B. N.

Shapiro, A. D. and Numerov, B. N. "Production of construction boards and fiberboards," Materialy Tsentr. nauch.-issled. inst. bumazh. prom-sti, Issue 36, 1948, p. 97-135

SO: U-3576, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 1h, 1949).

SHAPIRO, A. D. (Co-author)

See: NUMEROV, B. N.

Shapiro, A. D. and Numerov, B. N. "Problems in production of asphalt cardboards," Materialy Tsentr. nauch.-issled. in-ta bumazh. prom-sti, Issue 36, 1948, p. 295-331

SO: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 14, 1949).

Shapiro, A. D.

Shapiro, A. D. - "Emulsifying properties of caustic sulfite," Materialy
tsentr. nauch.-issled. in-ta burazh. prom-sti, Issue 37,
1948, p. 163-92 --- Bibliog: p. 192

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

SHAPIRO, A. D.

SHapiro, A. D. - "The manufacture of oil-and benzene-proof packing cartons,"
Materialy Tsentr. nauch.-issled. in-ta bumazh. prom-sti,
Issue 37, 1948, p. 297-332

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

ALEKSEYEV, A.A., inzhener, redaktor; ASHKENAZI, K.M., doktor tekhnicheskikh nauk, redaktor; GRABOVSKIY, V.A., kandidat tekhnicheskikh nauk, redaktor; GORBACHEV, A.N., kandidat tekhnicheskikh nauk, redaktor; IVANOV, S.N., kandidat tekhnicheskikh nauk, redaktor; LAPIN, P.S., kandidat tekhnicheskikh nauk, redaktor; NEFENIN, N.N., doktor tekhnicheskikh nauk, redaktor; PUZYREV, S.A., kandidat tekhnicheskikh nauk, redaktor; HYUKHIN, N.V., kandidat tekhnicheskikh nauk, redaktor; FLYATE, D.M., kandidat tekhnicheskikh nauk, redaktor; SHAPIRO, A.D., kandidat tekhnicheskikh nauk, redaktor; ELIASHBERG, M.G., kandidat tekhnicheskikh nauk, redaktor; KHUDYAKOVA, A.V., redaktor; VOLKHOVER, R.S., tekhnicheskiy redaktor.

[Paper maker's handbook] Spravochnik bumazhnika (tekhnologa)
Moskva, Goslesbumizdat. Vol. 1 1955. 790 p. (MLRA 8:10)
(Paper industry)

ALEKSEYEV, A.A., inzhener, redaktor; ASHKENAZI, K.M., doktor tekhnicheskikh nauk, redaktor; GRABOVSKIY, V.A., kandidat tekhnicheskikh nauk, redaktor; GORBACHEV, A.N., kandidat tekhnicheskikh nauk, redaktor; IVANOV, S.N., kandidat tekhnicheskikh nauk, redaktor; LARIN, P.S., kandidat tekhnicheskikh nauk, redaktor; NEPEGIN, N.N., doktor tekhnicheskikh nauk, redaktor; PUZYREV, S.A., kandidat tekhnicheskikh nauk, redaktor; RYUKHIN, N.V., kandidat tekhnicheskikh nauk, redaktor; FLYATE, D.M., kandidat tekhnicheskikh nauk, redaktor; SHAPIRO, A.D., kandidat tekhnicheskikh nauk, redaktor; ELIASHBERG, M.G., kandidat tekhnicheskikh nauk, redaktor; KHUDYAKOVA, A.V., redaktor izdatel'stva; KARASIK, N.P., tekhnicheskiy redaktor

[Paper maker's handbook] Spravochnik bumazhnika (tekhnologa). Moskva, Goslesbumizdat, Vol.2., book 1. 1956. 458 p. (MLRA 10:2)

1. Leningrad TSentral'nyy nauchno-issledovatel'skiy institut tsellyuloznoy i bumazhnoy promyshlennosti (Paper industry)

SHAPIRO, A.D., kandidat tekhnicheskikh nauk.

~~Answering readers' questions.~~ Bum.prom. 31 no.5:23 My '56.
(MLRA 9:8)
1. Nachal'nik laboratorii kartonov TSentral'nogo nauchno-issledovatel'skogo instituta bumagi.
(Paperboard)

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S.A., redaktor; PYUKHIN, N.V., redaktor; KHUDYAKOVA, A.V., redaktor
izdatel'stva; KARASIK, N.P. tekhnicheskiy redaktor

[Paper maker's manual] Spravochnik bumazhnika; tekhnologa. Moskva,
Goslesbumizdat. Vol. 2, book 2. 1957. 433 p. (MLRA 10:4)

1 Leningrad. TSentral'nyy nauchno-issledovatel'skiy institut
tsellyuloznoy i bumazhnoy promyshlennosti.
(Paper industry)

SHAPIRO, A.D., kand. tekhn. nauk.

Effect of certain factors on the properties of cardboard. Mum.
prom. 33 no.3:6-9 Mr '58. (MIRA 11:4)

1. TSentral'nyy nauchno-issledovatel'skiy institut tsellyuloznoy i
bumazhnoy promyshlennosti.
(Paperboard)

SHAPIRO, Arkadiy Davydovich; KOLOMIN, G.P., red.; BEI'CHENKO, N.I.,
red.izd-va; PROKOF'YEVA, L.N., tekhn.red.

[Production of wood-fiber blocks and particle board] Proiz-
vodstvo stroitel'nykh plit iz volokna i drevesnykh chasits.
Moskva, Goslesbumizdat, 1959. 57 p. (MIRA 13:4)
(Wood, Compressed) (Hardboard)

SHAPIRO, A. D., SHTOFENMAKHER, N. A.

Determining the properties of liner board. Bum.prom. 35 no.8:19
Ag '60. (MIRA 13:8)
(Paperboard)

ALEKSEYEV, A.A., inzh., red.; ASHKENAZI, K.M., doktor tekhn.nauk, red.;
GRABOVSKIY, V.A., kand.tekhn.nauk, red.; GORBACHEV, A.N., kand.tekhn.
nauk, red.; IVANOV, S.N., kand.tekhn.nauk, red.; LARIN, P.S., kand.
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S.A., kand.tekhn.nauk, red.; RYUKHIN, N.V., kand.tekhn.nauk, red.;
FLIATE, D.M., kand.tekhn.nauk, red.; SHAPIRO, A.D., kand.tekhn.nauk,
red.; ELIASHBERG, M.G., doktor tekhn.nauk, red.; KHUDYAKOVA, A.V.,
red.izd-va; SIDEL'NIKOVA, L.A., red.izd-va; LOBANKOVA, R.Ye., tekhn.red.

[Manual for paper industry technicians] Spravochnik bumazhnika; (tekhnologa). Moskva, Goslesbumizdat. Vol.3. 1961. 719 p. (MIRA 14:6)

1. Leningrad. TSentral'nyy nauchno-issledovatel'skiy institut
tsellyuloznoy i bumazhnoy promyshlennosti.
(Paper products)

VOLINA, T.L.; VYUKOV, Yu.P., kand. biol. nauk; LIFERIK, A.I.,
kand. tekhn. nauk;

[Protection of paperboard against biological disinte-
gration] Zashchita kartona ot biologicheskogo razrushen-
iya. Moskva, Tsentral. nauchno-issl. inst. informatsii
i tekhniko-ekon. issledovaniy po lesnoi, tselliulaczno-
bumazhnoi, derev'joraciyal'noi promyshl. i lesnemu
khoziaistvu, 1963. 57 p.
(MIRA 1712)